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| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/747,667 | PORADISH ET AL. | |
| | Examiner Joseph P. Martinez | Art Unit 2873 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to ____.
2. The allowed claim(s) is/are 1-29.
3. The drawings filed on 10 May 2004 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____ .
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date ____ .
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____ .
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date ____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date 092104 .
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other ____.

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Charles Brill on 9-21-04.

The application has been amended as follows:

Marked up version of claim 1:

I. Claim 1 (currently amended) A prism system for splitting/combining different colors of light comprising:

a first prism element having a face for projecting and receiving a first color of light;

a first surface supported substantially parallel and spaced to form an air gap having a length A1 from said face of said first prism;

a first light path through said prism for said first color having a glass path length G1 through said prism system such that the total path length ["]T["] for said first color is equal to the length of the air gap A1 plus the glass path length G1 ([i.e.,] T=A1+G1);

another prism element having a face for projecting and receiving another color of light;

another surface supported substantially parallel and spaced to form an air gap having a length A2 from said face of said another prism element; and
another path through said prism system for said another color having a glass path length G2 that is different from glass path length G1, glass path length G2 selected such that the total path length T for said another color is the same as the total path length T of said first color ([i.e.,] $A2+G2=T=A1+G1$).

Clean version of claim 1:

Claim 1 (currently amended) A prism system for splitting/combining different colors of light comprising:
a first prism element having a face for projecting and receiving a first color of light;
a first surface supported substantially parallel and spaced to form an air gap having a length A1 from said face of said first prism;
a first light path through said prism for said first color having a glass path length G1 through said prism system such that the total path length T for said first color is equal to the length of the air gap A1 plus the glass path length G1 ($T=A1+G1$);
another prism element having a face for projecting and receiving another color of light;
another surface supported substantially parallel and spaced to form an air gap having a length A2 from said face of said another prism element; and
another path through said prism system for said another color having a glass path length G2 that is different from glass path length G1, glass path length G2 selected such that the total

path length T for said another color is the same as the total path length T of said first color ($A_2+G_2=T=A_1+G_1$).

Marked up version of claim 9:

II. Claim 9 (currently amended) A three element prism system arranged for

splitting/combining three different colors of light comprising:

a first and second prism elements, each of said first and second elements having a face for projecting and receiving one of a first and second color of light respectively;

first and second surfaces; each of said first and second surfaces supported substantially parallel and spaced to form an air gap having a length A1 from one of said faces of said first and second prism elements;

first and second light paths through said arrangement of prism for said first and second colors respectively, both of said first and second paths having a glass path length G1 through said arrangement of prisms such that the total path length T of both said first and second colors is equal to the length of the air gap A1 plus the glass path length G1 ([i.e.,] $T=A_1+G_1$);

another prism element having a face for projecting and receiving a third color of light;

another surface supported substantially parallel and spaced to form an air gap having a length A2 from said face of said another prism element; and

another path through said prism arrangement for said third color having a glass path length G2 that is different from glass path length G1, glass path length G2 selected such that the total path length T for said third color is the same as the total path length T of said first and second colors ([i.e.,] $A_2+G_2=T=A_1+G_1$).

Clean version of claim 9:

Claim 9 (currently amended) A three element prism system arranged for splitting/combining three different colors of light comprising:
a first and second prism elements, each of said first and second elements having a face for projecting and receiving one of a first and second color of light respectively;
first and second surfaces, each of said first and second surfaces supported substantially parallel and spaced to form an air gap having a length A1 from one of said faces of said first and second prism elements;
first and second light paths through said arrangement of prism for said first and second colors respectively, both of said first and second paths having a glass path length G1 through said arrangement of prisms such that the total path length T of both said first and second colors is equal to the length of the air gap A1 plus the glass path length G1 ($T=A1+G1$);
another prism element having a face for projecting and receiving a third color of light;
another surface supported substantially parallel and spaced to form an air gap having a length A2 from said face of said another prism element; and
another path through said prism arrangement for said third color having a glass path length G2 that is different from glass path length G1, glass path length G2 selected such that the total path length T for said third color is the same as the total path length T of said first and second colors ($A2+G2=T=A1+G1$).

Allowable Subject Matter

Claims 1-29 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art taken alone or in combination fails to anticipate or fairly suggest the limitations of the claims, in such a manner that a rejection under 35 USC 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims 1, 9, 22 and 26.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Specifically regarding claims 1, 9, 22 and 29, Sato (6456447) teaches the state of the art of prisms arranged for splitting/combining different colors of light.

But, Sato fails to explicitly teach a 2 or 3 prism system arrangement or method of projecting different color images comprising a first and second prism elements or a first, second and third prism elements; a first and second surfaces or a first, second and third surfaces; air gap length A1 and A2; glass path lengths G1 and G2; and specifically, the total path length T of both said first and second colors is equal to the length of the air gap A1 plus the glass path length G1 ($T=A1+G1$) and another path through said prism arrangement for said third color having a glass path length G2 that is different from glass path length G1, glass path length G2 selected such that the total path length T for said third color is the same as the total path length T of said first and second colors ($A2+G2=T=A1+G1$), as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph P. Martinez whose telephone number is 571-272-2335. The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
9-21-04



Hung Xuan Dang
Primary Examiner